

## ABSTRACT

The invention provides a variety of reagents for use in the diagnosis and management of breast cancer. The invention utilizes cDNA microarray technology to identify genes whose expression profile across a large group of tumor samples correlates with that of cytokeratin 5 and cytokeratin 17, markers for basal cells of the normal mammary lactation gland. The invention demonstrates that tumors that express cytokeratin 5/6 and/or 17 have a poor prognosis relative to tumors overall. The invention provides basal marker genes and their expression products and uses of these genes for diagnosis of breast cancer and for identification of therapies for breast cancer. In particular, the invention provides basal marker genes including cadherin3, matrix metalloproteinase 14, and cadherin EGF LAG seven-pass G-type receptor 2. The invention provides antibodies to the polypeptides expressed by these genes and methods of use thereof.

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